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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,265	03/26/2004	Keiji Hirao	NANP118US	1621
23623	7590	10/19/2006		
AMIN, TUROCY & CALVIN, LLP 1900 EAST 9TH STREET, NATIONAL CITY CENTER 24TH FLOOR, CLEVELAND, OH 44114			EXAMINER LANG, AMY T	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/811,265

Applicant(s)

HIRAO ET AL.

Examiner

Amy T. Lang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4-8-04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1 and 2 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 8, and 11 of U.S. Patent No. 6,617,289 B2 (Memita). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

US '289 discloses a lubricating composition comprised of an alcohol reacted with monocarboxylic acid.

Applicants' attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those

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portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent.

(underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to where US '289 further discloses the alcohol as an ether compound that is obtained by the reaction of an alkylene oxide with an alcohol (column 4, lines 9-12). The alkylene oxide is specifically disclosed as ethylene oxide and the alcohol as neopentyl glycol, which clearly overlaps the instant claims (column 4, lines 19-27, 32-33).

Attention is further drawn to where US '289 discloses the monocarboxylic acid as saturated and linear, so that all of the moles of carboxylic acid are linear (column 3, lines 48-53). Therefore, the condition of at least 80 mol% of the monocarboxylic acid being saturated and linear is satisfied.

US '289 does not specifically disclose (i) the mole ratio of ethylene oxide to diol and (ii) the dynamic viscosity, viscosity index, and total acid value of the ester.

With respect to (i) above, although US '289 does not specifically disclose the claimed mole ratio, since one embodiment is a 1:1 ratio, it would have been obvious for US '289 to also use this ratio.

With respect to (ii) above, the dynamic viscosity, viscosity index, and total acid value of the ester produced are intrinsic properties. Therefore, since US '289 produces

an identical ester, it would also share the same dynamic viscosity, viscosity index, and total acid value properties given that the property of a compound is inseparable from the compound (*In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)).

3. Claims 1 and 2 are directed to an invention not patentably distinct from claims 1, 3, 8, and 11 of commonly assigned US 6,617,289 B2 (Memita). Specifically, although the copending claims are not identical, they are not patentably distinct for the reasons set forth in paragraph 2 above.

4. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned US 6,783,746, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon

the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (JP 07-305079).

Kimura discloses a lubricating composition for an internal combustion engine ([0001], [0006]). The composition is comprised of an ester obtained by reacting an alkylene oxide, a polyhydric alcohol, and a fatty acid ([0015]). The alkylene oxide is further disclosed as ethylene oxide and the polyhydric alcohol as either neopentyl glycol or pentaerythritol ([0017], [0018]). The mole ratio of alkylene oxide to alcohol is 1-10 to 3, which clearly overlaps the instant range ([0018]). The fatty acid is further disclosed

as having 8- 22 carbon atoms, specifically caprylic acid, which is a saturated monocarboxylic acid that contains no branching ([0019]). Therefore, at least 80 mol% of the monocarboxylic acid is a saturated, linear aliphatic acid.

Kimura does not disclose (i) the dynamic viscosity, viscosity index, or total acid value of the ester produced, or (ii) a mixture of two esters in the lubricating composition.

With respect to (i) above, the dynamic viscosity, viscosity index, and total acid value of the ester produced are intrinsic properties. Therefore, since Kimura produces an identical ester, it would also share the same dynamic viscosity, viscosity index, and total acid value properties given that the property of a compound is inseparable from the compound (*In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)).

With respect to (ii) above, Kimura discloses the ester formed from an alcohol consisting of neopentyl glycol, pentaerythritol, or a mixture of the alcohols to form an ester ([0017]). Therefore, it would have been obvious that some of the ester formed during the production process would contain only the neopentyl glycol, some would contain only the pentaerythritol, and some would contain both. This would then produce a composition comprising two esters, one from a diol (neopentyl glycol) and one from a polyol (pentaerythritol). The two esters would have different weights; so that the weight ratio of the diol to the polyol formed ester would fall within the claimed range. The instant specification also provides evidence for this by specifically disclosing neopentyl glycol as an appropriate diol and pentaerythritol as an appropriate polyol (page 7, line 1; page 13, lines 17-20).

6. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (JP 07-305079) in view of Gatto (US RE37,363 E).

Kimura, as discussed in paragraph 5 and incorporated here by reference, discloses a lubricating composition for an internal combustion engine comprised of specific esters. Other additives are present in the composition including a detergent dispersant and more.

Kimura does not specifically disclose an antioxidant and viscosity index improver additives and the wt% of each additive.

Gatto also discloses a lubricant composition for an internal combustion engine (column 1, lines 28-29). The composition is comprised of specific additives including between 0 and 10 wt% of a viscosity index improver, from 4.0 and 8.5 wt% of a dispersant, from 1.0 to 2.5 wt% of a detergent, and between 1.0 to 2.5 wt% of an antioxidant (column 7, lines 1-51). These additives help to control oxidation, extend the life of, and reduce unacceptable viscosity increases of the lubricating oil (column 1, line 34-37).

Since Kimura is open to various additives and Gatto discloses specific additives that are advantageous in the disclosed amounts, it would have been obvious for Kimura to also utilize the additives.

7. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu (JP 2001-139978) in view of Kimura (JP 03-30079).



Ryu discloses a lubricating composition for an internal combustion engine comprised of mixed esters obtained by the reaction of an alkylene oxide, polyhydric alcohol, and fatty acid ([0001], [0007]). The alkylene oxide is further disclosed as ethylene oxide and the polyhydric alcohol as pentaerythritol or trimethylolethane ([0008]). The mole ratio of polyhydric alcohol to ethylene oxide is disclosed as 1:1-10, which clearly overlaps the instant range ([0016]). The fatty acid is further disclosed as saturated and containing from 3 to 24 carbon atoms ([0015]). Ryu specifically discloses the fatty acid as lauric acid, which overlaps the instantly claimed monocarboxylic acid having greater than 80 mol% saturated and linear acids.

Ryu does not disclose (i) a mixture of two esters in the lubricating composition, or (ii) the dynamic viscosity, viscosity index, or total acid value of the ester produced.

With respect to (i) above, Kimura, as discussed in paragraph 5 and incorporated here by reference, also discloses a lubricating composition for an internal combustion engine comprised of ester. Kimura discloses the ester as produced from the reaction of ethylene oxide, a polyhydric alcohol, and a monocarboxylic saturated, linear carboxylic acid. The polyhydric alcohol can be neopentyl glycol, trimethylolethane, or pentaerythritol ([0017]).

Both Ryu and Kimura produce a lubricant composition for an internal combustion engine comprised of an identical reaction product to from an ester composition. Since Ryu utilizes a mixture of esters and Kimura discloses that it is known to use neopentyl glycol in place of trimethylolethane as the polyhydric alcohol, it would have been obvious for Ryu to also utilize neopentyl glycol. Therefore, Ryu would produce a

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composition comprised of esters formed from a diol and polyol alcohol, as is instantly claimed.

With respect to (ii) above, the dynamic viscosity, viscosity index, and total acid value of the ester produced are intrinsic properties. Therefore, since the combination of Ryu and Kimura produces an identical ester, it would also share the same dynamic viscosity, viscosity index, and total acid value properties given that the property of a compound is inseparable from the compound (*In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)).

8. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu (JP 2001-139978) in view of Kimura (JP 03-30079) and Gatto (US RE37,363 E).

The combination of Ryu and Kimura, as discussed in paragraph 7 and incorporated here by reference, disclose a lubricating composition for an internal combustion engine comprised of specific esters. Other additives are present in the composition of Ryu including, but not limited to, a viscosity index improver from 0.01 to 30 wt% and an antioxidant from 0.05 to 5 wt% ([0020], [0025]).

The combination of Ryu and Kimura does not specifically disclose a dispersant – detergent additive.

Gatto also discloses a lubricant composition for an internal combustion engine (column 1, lines 28-29). The composition is comprised of specific additives including from 4.0 and 8.5 wt% of a dispersant and from 1.0 to 2.5 wt% of a detergent (column 7,

lines 1-51). These additives help to control oxidation, extend the life of, and reduce unacceptable viscosity increases of the lubricating oil (column 1, line 34-37).

Since the combination of Ryu and Kimura is open to various additives and Gatto discloses specific additives that are advantageous in the disclosed amounts, it would have been obvious for Kimura to also utilize the additives.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy T. Lang whose telephone number is 571-272-9057. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10/13/06

ATL

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